

**JAD DEVELOPER - BULK**

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 and SI 2020/1577

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product Name JAD DEVELOPER - BULK

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified Use(s) For use in the Dye Penetrant Inspection Process BS EN ISO 571-1:1997 (BS EN ISO 3452-2:2006 Sensitivity level 2 when used in conjunction with penetrant family products).

Uses Advised Against Not known.

**1.3 Details of the supplier of the safety data sheet**

Company Identification Johnson and Allen Ltd  
Address of Supplier Neocol Works  
Smithfield  
Sheffield  
Postal code S3 7AR  
Telephone 0114 2738066  
Fax 0114 2729842  
E-mail info@johnsonandallen.co.uk  
Office hours 08:30 - 17:00

**1.4 Emergency telephone number**

Company 0114 2738066 (UK office hours 08.30-17.00)  
NHS Direct +44 111

**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567  
Skin Irrit. 2 :Causes skin irritation.  
Eye Irrit. 2 :Causes serious eye irritation.  
STOT SE 3 :May cause drowsiness or dizziness.  
Carc. 2 :Suspected of causing cancer.

**2.2 Label elements**

According to GB CLP Regulations, UK SI 2019/720 and UK SI 2020/1567

Product Name JAD DEVELOPER - BULK

Hazard Pictogram(s)



GHS08



GHS07

Signal Word(s) Warning

Hazard Statement(s)

H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H336: May cause drowsiness or dizziness.  
H351: Suspected of causing cancer.

Precautionary Statement(s)

P201: Obtain special instructions before use.  
P261: Avoid breathing vapours.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P312: Call a POISON CENTRE/doctor if you feel unwell.  
P501: Dispose of this container to hazardous or special waste collection point.

**2.3 Other hazards**

None known.

**2.4 Additional Information**

For full text of H/P Statements see section 16.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Not applicable.

**3.2 Mixtures**

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Dichloromethane	75-09-2	200-838-9	>90	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H336 Carc. 2 H351	GHS08 GHS07
Alcohols, C12-13, ethoxylates, 1-2.5 EO	66455-14-9	500-165-3	<1	Eye Dam. 1 H318 Aquatic Acute 1 H400	GHS05 GHS09

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For full text of H/P Statements see section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Skin Contact	Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Wash out mouth with water. If symptoms persist, obtain medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing cancer.

**4.3 Indication of any immediate medical attention and special treatment needed**

IF exposed or concerned: Get medical advice/attention.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

Suitable Extinguishing media	Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable extinguishing media	None known.

**5.2 Special hazards arising from the substance or mixture**

Decomposes in a fire giving off toxic fumes: Phosgene, Hydrogen chloride, Carbon monoxide, Carbon dioxide.

**5.3 Advice for firefighters**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. Wear protective gloves/protective clothing/eye protection/face protection.

**6.2 Environmental precautions**

Do not allow into any sewer on the ground, or into any body of water.

**6.3 Methods and material for containment and cleaning up**

Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery.

**6.4 Reference to other sections**

See Also Section 8, 13.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Use only outdoors or in a well-ventilated area. Avoid breathing vapours. Avoid contact with skin and eyes. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke during work.

**7.2 Conditions for safe storage, including any incompatibilities**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

Strong oxidising agents, Alkalis, Acids, Zinc, Aluminium.

**7.3 Specific end use(s)**

For use in the Dye Penetrant Inspection Process BS EN ISO 571-1:1997 (BS EN ISO 3452-2:2006 Sensitivity level 2 when used in conjunction with penetrant family products).

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****8.1.1 Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Dichloromethane	75-09-2	100	353	200	706	BMGV, Sk

Region  
United Kingdom

Source  
UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

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Remark	Notes
BMGV	Biological monitoring guidance values are listed in Table 2.
Sk	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

Biological Exposure Indices						
Substances	CAS Number	Sampling	Tissues	Control parameters	Biological monitoring guidance value	Comments
Dichloromethane	75-09-2	Post shift	end-tidal breath	carbon monoxide	30 ppm	

**8.2 Exposure controls**

8.2.1. Appropriate engineering controls Provide adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves.  
Recommended: Viton rubber (fluoro rubber), Polyvinyl alcohol (PVA), Butyl rubber.  
Thickness of coating: 0.4 mm  
Break through time:  
Viton rubber (fluoro rubber), Polyvinyl alcohol (PVA): > 480 minutes  
Butyl rubber: > 10 minutes



Respiratory protection

A suitable mask with filter type AX may be appropriate.



Thermal hazards

Not applicable.

8.2.3. Environmental Exposure Controls Do not allow into any sewer on the ground, or into any body of water.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

Appearance	Liquid.
Colour	Colour: White.
Odour	Characteristic.
Odour threshold	Not established.
pH	Not known.
Melting point/freezing point	-97°C
Initial boiling point and boiling range	39.8°C
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	348.78 mm Hg @ 20°C
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	1.32 g/l @ 20°C
Solubility(ies)	Solubility (Water): Slightly soluble. Solubility (Other): Not known.
Partition coefficient: n-octanol/water	1.25 (Dichloromethane)
Auto-ignition temperature	624°C
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

**9.2 Other information**

None.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**

Stable under normal conditions.

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**10.2 Chemical Stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions known if used for its intended purpose.

**10.4 Conditions to avoid**

Heat and direct sunlight.

**10.5 Incompatible materials**

Strong oxidising agents, Alkalis, Acids, Zinc, Aluminium.

**10.6 Hazardous decomposition products**

No hazardous decomposition products known.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Acute toxicity - Ingestion

Calculation method : Not classified.  
Low oral toxicity.

Acute toxicity - Skin Contact

Dichloromethane: LD50 (rat) = 2100 mg/kg  
Calculation method : Not classified.  
Low acute toxicity.

Acute toxicity - Inhalation

Dichloromethane: LD50 (rat) > 2000 mg/kg  
Calculation method : Not classified.  
Low acute toxicity.

Skin corrosion/irritation

Dichloromethane: LC50 (rat) (4 hours) = 158000 mg/l  
Calculation method : Causes skin irritation. No data.

Serious eye damage/irritation

Calculation method : Causes serious eye irritation. No data.

Skin sensitization data

Calculation method : Not classified.

It is not a skin sensitiser.

Respiratory sensitization data

Calculation method : Not classified.

Germ cell mutagenicity

Calculation method : Not classified.

Carcinogenicity

Calculation method : Suspected of causing cancer. No data.

Dichloromethane:

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histological type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

Reproductive toxicity

Calculation method : Not classified.

No evidence of reproductive effects.

Lactation

Calculation method : Not classified.

STOT - single exposure

Calculation method : May cause drowsiness or dizziness. No data.

STOT - repeated exposure

Calculation method : Not classified.

Aspiration hazard

Calculation method : Not classified.

**11.2 Other information**

Not known.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Toxicity - Aquatic invertebrates

Low toxicity to invertebrates.

Dichloromethane: EC50 (Daphnia magna) (48 hour) = 1682 mg/l

Toxicity - Fish

Low toxicity to fish.

Dichloromethane: LC50 (96 hour) = 220 mg/l

Toxicity - Algae

Low toxicity to algae.

Dichloromethane: EC50 (96 hour) > 660 mg/l

Toxicity - Sediment Compartment

Not classified.

Toxicity - Terrestrial Compartment

Not classified.

**12.2 Persistence and degradability**

The product is poorly biodegradable. The product is unlikely to persist in the environment.

**12.3 Bioaccumulative potential**

The product has no potential for bioaccumulation.

Bioconcentration factor (BCF): 2.3

**12.4 Mobility in soil**

Slightly soluble. The product is predicted to have high mobility in soil. The product is volatile and will partition into the atmosphere.

**12.5 Results of PBT and vPvB assessment**

Not classified as PBT or vPvB.

**12.6 Other adverse effects**

Not known.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

Dispose of this container to hazardous or special waste collection point. Refer to manufacturer or supplier for information on recovery or recycling. Do NOT landfill.

**13.2 Additional Information**

Disposal should be in accordance with local, state or national legislation.

**SECTION 14: TRANSPORT INFORMATION**

**14.1 UN number**

UN No. 1593

**14.2 UN proper shipping name**

UN proper shipping name DICHLOROMETHANE

**14.3 Transport hazard class(es)**

ADR/RID

ADR/RID Class 6.1

ADR Classification Code T1

Special Provisions 516

Limited Quantities 5 L

Excepted Quantities E1

Emergency Action Code 2Z

Mixed Packing Instructions for Packages P001 IBC03 LP01 R001

Special Packing Provisions for Packages B8

Mixed Packing Instructions for Packages MP19

Packing Instructions for Portable Tanks T7

Special Provisions for Portable Tanks TP2

Tank Code for Tanks L4BH

Special Provisions for Tanks TU15 TE19

Vehicle for Tank Carriage AT

ADR Transport Category 2

Tunnel Restriction Code E

Special Provisions for Carriage - Packages V12

Special Provisions for Carriage - Bulk

Special Provisions for Carriage - Loading, Unloading and Handling, CV13 CV28

Special Provisions for Carriage - Operation S9

ADR HIN 60

IMDG

IMDG Class 6.1

Special Provisions 516

Limited Quantities 5 L

Excepted Quantities E1

Mixed Packing Instructions for Packages P001 IBC03 LP01 R001

Special Packing Provisions for Packages B8

Packing Instructions for Portable Tanks T7

Special Provisions for Portable Tanks TP2

IMDG EMS F-A, S-A

Stowage and Handling Category A

Segregation SGG10

Marine Pollutant

ICAO/IATA

IATA Proper Shipping Name DICHLOROMETHANE

Excepted Quantities E1

Passenger and Cargo Aircraft Limited Y642

Quantities Packing Instructions

Passenger and Cargo Aircraft Limited 2L

Quantities Max net Qty

Passenger and Cargo Aircraft Packing Instructions 655

Passenger and Cargo Aircraft Max net Qty 60L

Cargo Aircraft Packing Instructions 663

Cargo Aircraft Max net Qty 220L

Special Provisions

Emergency Response Guidebook (ERG) Code 6L

Labels

Labels 6.1

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<b>14.4 Packing group</b>	
Packing group	III
<b>14.5 Environmental hazards</b>	
Environmental hazards	Not classified as a Marine Pollutant.
<b>14.6 Special precautions for user</b>	
Special precautions for user	Not known.
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	
	No information available

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

United Kingdom Regulations - Authorisations and/or Restrictions On Use	
UK REACH Candidate List of Substances Not listed	
of Very High Concern for Authorisation	
UK REACH Authorisation List (Annex XIV) list of substances subject to authorisation	Not listed
UK REACH Restrictions List (Annex XVII) Dichloromethane (75-09-2), Alcohols, C12-13, ethoxylates, 1-2.5 EO (66455-14-9)	
Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	
UK REACH Rolling Action Plan (RAP) The Persistent Organic Pollutants Regulations 2007 (SI 2007/3106) as amended	Not listed
The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/583)	Not listed
The Prior Informed Consent (PIC) Regulations concerning the export and import of hazardous chemicals SI2008/2108 as amended	Not listed
European Regulations - Authorisations and/or Restrictions On Use	
Community Rolling Action Plan (CoRAP) Dichloromethane (75-09-2)	

**15.2 Chemical Safety Assessment**

United Kingdom	Not applicable.
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**SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements: 1-16

**LEGEND**

Hazard Pictogram(s)



GHS08



GHS07

Hazard classification

GHS05: GHS: Corrosion  
GHS09: GHS: Environment  
Skin Irrit. 2 : Skin corrosion/irritation, Category 2  
Eye Irrit. 2 : Serious eye damage/irritation, Category 2  
STOT SE 3 : Specific target organ toxicity — single exposure, Category 3  
Carc. 2 : Carcinogenicity, Category 2  
Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1

Hazard Statement(s)

H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H336: May cause drowsiness or dizziness.  
H351: Suspected of causing cancer.

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Precautionary Statement(s)	<p>H400: Very toxic to aquatic life.</p> <p>P201: Obtain special instructions before use.</p> <p>P202: Do not handle until all safety precautions have been read and understood.</p> <p>P261: Avoid breathing vapours.</p> <p>P264: Wash hands and exposed skin thoroughly after handling.</p> <p>P271: Use only outdoors or in a well-ventilated area.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302+P352: IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P312: Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P332+P313: If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313: If eye irritation persists: Get medical advice/attention.</p> <p>P362+P364: Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of this container to hazardous or special waste collection point.</p>
Acronyms	<p>ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</p> <p>ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>ATE : Acute Toxicity Estimate</p> <p>CAS : Chemical Abstracts Service</p> <p>DNEL : Derived No Effect Level</p> <p>EC : European Community</p> <p>EINECS : European Inventory of Existing Commercial Chemical Substances</p> <p>IATA : International Air Transport Association</p> <p>IBC : Intermediate Bulk Container</p> <p>ICAO : International Civil Aviation Organization</p> <p>IMDG : International Maritime Dangerous Goods</p> <p>LTEL : Long term exposure limit</p> <p>PBT : Persistent, Bioaccumulative and Toxic</p> <p>PNEC : Predicted No Effect Concentration</p> <p>REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals</p> <p>RID : Regulations concerning the International Carriage of Dangerous Goods by Rail</p> <p>STEL : Short term exposure limit</p> <p>STOT : Specific Target Organ Toxicity</p> <p>UN : United Nations</p> <p>vPvB : very Persistent and very Bioaccumulative</p>
Key literature references and sources for data used to compile the SDS	<p>GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567</p>
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